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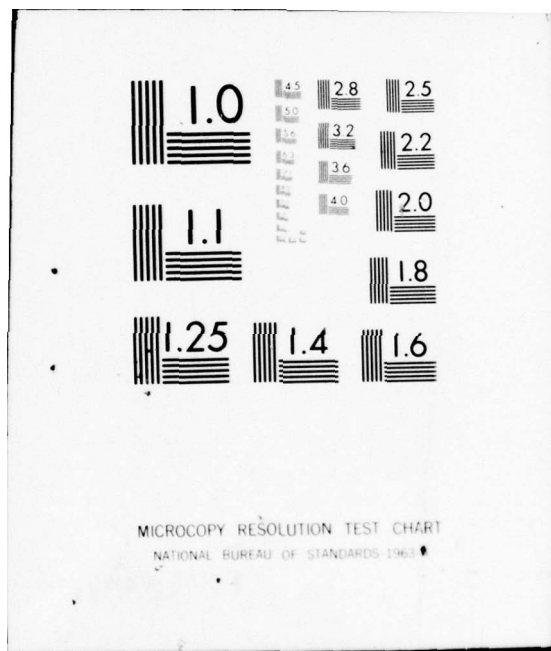
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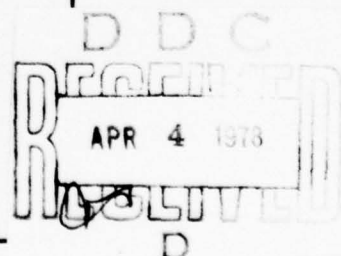


## PROGRAM MANAGEMENT COURSE INDIVIDUAL STUDY PROGRAM

THE EFFECT OF RECOGNIZING  
THE COST OF FACILITIES CAPITAL  
IN DEFENSE CONTRACTING

STUDY PROJECT REPORT  
PMC 77-2

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DEFENSE SYSTEMS MANAGEMENT COLLEGE

STUDY TITLE: THE EFFECT OF RECOGNIZING THE COST OF FACILITIES  
CAPITAL IN DEFENSE CONTRACTING

STUDY PROJECT GOALS:

To determine if the implementation of Defense Procurement Circular (DPC) 76-3 has stimulated industry to invest in cost-reducing facilities.

STUDY REPORT ABSTRACT:

This report reviews the reasons for the creation and implementation of Defense Procurement Circular 76-3. It identifies the essential procedural changes which are used to recognize a defense contractor's investment in facilities and discusses how these procedures should adjust profit levels based upon this investment. It presents the results of a survey of government and industry personnel who deal with DPC 76-3 or facilities management. The author then draws conclusions as to the manner in which DPC 76-3 is being implemented and the effect it has had on the level of facilities investment after one year.

SUBJECT DESCRIPTORS: Financial Management, Cost Management, Cost Estimating (10.06.01.01)

Procurement Management, Contract Strategy, Negotiations (10.07.03.05)

Production Management, Corporate Capitalization and Investment (10.09.14)

Procurement Management (10.07) Profit Policy.

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THE EFFECT OF RECOGNIZING  
THE COST OF FACILITIES CAPITAL  
IN DEFENSE CONTRACTING

Individual Study Program  
Study Project Report  
Prepared as a Formal Report

Defense Systems Management College  
Program Management Course  
Class 77-2

by

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November 1977

Study Project Advisor  
LTC Porter Venn, USAF

This study project report represents the views, conclusions, and recommendations of the author and does not necessarily reflect the official opinion of the Defense Systems Management College or the Department of Defense.

## EXECUTIVE SUMMARY

As a result of concern over the low levels of capital investment in facilities by the defense industry, the Department of Defense (DOD) implemented Defense Procurement Circular (DPC) 76-3 on 1 October 1976. These procedures require the government contracting officer to recognize the extent and nature of the contractor's facilities investment when determining the contract profit objective. Furthermore, the imputed cost of capital for facilities is now an allowable cost on performance of the contract.

DPC 76-3 is a significant and controversial change to DOD profit policy. It has been in the field for one year and applied to many government contracts. This paper examines the implementation of DPC 76-3 and attempts to detect any impact on facilities investment levels.

To accomplish this a model of a fictitious government contractor is used to reveal how DPC 76-3 should work. It then presents the results of a survey of both government and defense industry personnel involved with either DPC 76-3 or facilities management.

The significant conclusions made in the report are that under DPC 76-3 (1) contracts with low labor content and high facilities investment receive greater return for the contractor than do contracts with high labor content and low facilities investment; (2) imputed cost of facilities capital is averaging about 0.5% of costs which is providing a slight increase in return to industry; and (3) any increase that may have

occurred is not sufficiently large enough to cause any change in the level of investment. The author cautions that it is still too early to assess the long term impact of DPC 76-3.



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## SECTION I

### INTRODUCTION

#### Purpose of the Project

In recent years, managers within the Department of Defense (DOD) have become increasingly concerned with the low level of facilities investment within the defense industry. This low level has caused an apparent erosion of the industrial base and a decline in its productivity.

Former Deputy Secretary of Defense William P. Clements testified to this issue before the Joint Committee on Defense Production on 18 November 1976. His statement highlighted the magnitude of this problem and suggested some causes:

Defense contractor profits, when measured on the basis of sales, are on the average lower than those generated in commercial endeavors; however, when measured on an investment basis they are somewhat higher. This relationship is traceable to a markedly low level of investment by defense contractors. In terms of production facilities, for example, commercial firms on the average, invest more than twice the amount of that defense contractor do on the basis of sales dollars. While there are many reasons for this lack of investment, some are traceable to our procurement approach. In the past we have not related profit to investment in a satisfactory way; nor have we allowed the cost of the capital required for investment to be reimbursed as a cost on defense contracts (8:viii-ix).

In an effort to reverse this trend, the DOD released on 1 September 1976 a new policy for profit on defense procurement. This policy is embodied in Defense Procurement Circular 76-3 (DPC 76-3) and was effective on 1 October 1976. There were two significant changes made. First, the imputed cost of



capital for facilities will be considered allowable on most negotiated contracts. Second, the level of facilities investment will be recognized by DOD contracting officers in determining a pre-negotiation profit objective (7:i).

The purpose of this project will be to examine the implementation of DPC 76-3 during the past year and attempt to detect any impact on corporate investment policy.

#### Scope of the Project

Section II of this paper describes the environment and the significant events which lead up to the creation of DPC 76-3. Section III reviews the objectives of the new profit policy and compares it with the old policy. A very simplified model of a fictitious defense contractor is used to illustrate the effects of DPC 76-3 on profit levels.

A field survey was conducted of both industry and government personnel dealing with defense contracting and facilities investment. Section IV provides a summary of these interviews while Appendix A contains interviews in greater detail.

This survey was necessarily limited in sample size by the time and resources available to the author as a student at the Defense Systems Management College. Almost with exception, those people contacted requested that the source of this sensitive information be kept private. This privacy was necessary to obtain reliable data and candid comments. Their request will be honored.

Finally, Section V provides the conclusions made from this

this survey and relates them to the original purpose of this project.

## SECTION II

### BACKGROUND

#### Environment for Change

The DOD profit policy has attracted the attention of many interested parties over the past years. Groups such as Congress, the General Accounting Office, the Office of Manpower and Budget, financial institutions, and, of course, the Office of the Secretary of Defense have alternatively praised and criticized this policy. There has been little apparent agreement.

In 1963 the Logistics Management Institute published a study report, "Study of Profit or Fee Policy", which recognized that profit is the basic motivator for contract performance and recommended the use of weighted guidelines (WGL) as a technique to establish an appropriate profit base upon desired contractor performance (11).

This philosophy was incorporated into the DOD's contract profit policy as Armed Services Procurement Regulations (ASPR) 3-803. A copy of these profit factors and their weight ranges as was used for WGL's is included in Appendix B (6).

This policy did not consider rewarding the contractor for his investment in facilities. In 1971 the Comptroller General of the United States pointed this out in a report to Congress. They felt that profits, which are related only to costs, do not provide positive incentives to invest in equipment that would increase efficiency and lower costs (4). Many other articles with similar statements occurred during this period of time (10).

In 1972 DOD made a meagor attempt to influence facilities investment by promulgating DPC 107 on a voluntary basis. It recognized the total capital estimated to be employed by the contractor in the procurement and adjusted the profits accordingly. Although it was supported during development, for a variety of reasons it was poorly accepted when promulgated. It was withdrawn (8:VI-3, VI-21).

#### Profit '76 Study

Recognizing that a major effort was necessary to assess the problem, Secretary Clements authorized a comprehensive study. This study was directed by US Air Force Brigadier General James W. Stansberry and was chartered to:

determine the level of investment and profitability of defense contractors relative to their commercial counterparts, and to recommend any needed changes in DOD profit policy.

This study is known as "Profit '76" (8:iii). A summary of the Profit '76 findings on profitability may be found in Table 1 and in the text which follows.

TABLE 1  
PROFITABILITY IN THE DEFENSE INDUSTRY  
VS. COMMERCIAL INDUSTRY 1970-1974 (10:46)

	<u>Defense</u>	<u>Commercial</u>
Average Negotiated Profit (On Sales)	8.8%	
After Unallowables	6.8%	
Average Realized Profit (On Sales)	4.7%	6.7%
Realized Return on Investment	13.5%	10.7%
Level of Investment		
Total	\$.35/Sales \$	\$.63/Sales \$
Facilities	\$.11/Sales \$	\$.26/Sales \$



Defense contractors average 30% less profit on sales but show 26% more return on investment than commercial contractors. This is achieved by minimizing capital investment.

Profit '76 also concluded that the level of investment made by a business is directly correlated to its return on sales as a major source of funds. Since commercial business finds it efficient to maintain a significantly higher level of investment, an increase in investment by defense contractors should decrease production costs and the price to the government (8:IX-5 through IX-23).

### SECTION III

#### DEFENSE PROCUREMENT CIRCULAR 76-3

##### New Profit Policy

Profit '76 recommended several policy changes which have been accepted and have been incorporated into procurement procedures as DPC 76-3. Weighted guidelines continue to be used as the technique for determining the DOD contracting officer's pre-negotiation profit objective. However, while costs have been de-emphasized, the level of facilities investment will be considered as a profit factor to reward investment. The imputed cost of capital for facilities investment<sup>1</sup> will also be allowed as a cost on most negotiated contracts (7).

The new DPC 76-3 profit factors and weight ranges for use as weighted guidelines are included in Appendix C.

Table 2, below, provides a summary and compares the new policy with the old. It reveals that both the profit factors and their weight ranges have been adjusted, resulting in a shift of the relative importance assigned to each factor as constituting the pre-negotiation profit objective.

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<sup>1</sup>The Cost Accounting Standards Board in coordination with Profit '76 developed a procedure known as "Cost of Money as an Element of the Cost of Facilities Capital, CAS 414." Promulgated in June 1976, CAS 414 establishes a criteria for measurement and allocation of the cost of money on an imputed basis by applying to the facilities capital the interest rate published semi-annually by the US Treasury Department (5: 22241-22244).



TABLE 2

A COMPARISON OF POST AND PRE- DPC 76-3  
PROFIT POLICY (8:IX-28)

WEIGHTED GUIDELINE PROFIT FACTOR	OLD POLICY		NEW POLICY	
	Weight Range % of Base *	Avg. % Of Profit Obj	Weight Range % of Base *	Avg. % Of Profit Obj
Contractor Input to Total Performance (CITP)	33 To 61	65	(33To61)X.7	50
Contractor Risk	0 To 7	30	0 To 8	40
Contractor's Past Performance	- 2 To + 2	5		DELETED
Other Factors	- 2 To + 2			
Facilities Investment	--		6 To 10 (Facilities Capital Investment Base)	10
Special Factors	--		11 To 4 (FMS Order Base)	
Foreign Military Sales	--		1 To 4 - 5 To + 5 (Basic Profit Obj Base)	
Independent Development				
Other				

\*Measurement base is booked cost unless noted otherwise.

The reduction of the Contractor's Input to Total Performance (CITP) by a factor of 0.7 significantly reduces the relative importance of cost in determining the pre-negotiation profit objective. The addition of the facilities investment factor was intended to be modest until industry had the opportunity to adjust its investment patterns.

The inclusion of imputed cost of capital for facilities investment as a reimbursable cost was supposed to be offset within the profit objectives (7:i). At any rate, these three elements of DPC 76-3 are the focus of this paper.

#### A Simple Illustration

In an effort to illustrate some of the concepts previously discussed, an example will be made utilizing a fictitious defense contractor, War Weapons, Inc. (WWI.). This model is extremely simplified by excluding the contributions of contractor risk and other factors from the profit structure. This permits a more direct investigation of the various parameters associated with facilities investment. CAUTION - although an attempt was made to select representative numbers, only the direction and relative size of the changes is considered significant.

WWI has two contracts with the Department of Defense. Both contracts are for \$100.00 of booked costs (not including the imputed cost of facilities capital) and utilize \$10.00 of capital facilities. As a base case assume contract A is a manufacturing contract receiving a CITP weight of 4% in the pre-negotiated profit objective. Contract B is a research effort and receives

8%. The profit structure received under the old policy would be as shown in Table 3a. No consideration is given for facilities investment.

TABLE 3  
THE WAR WEAPONS INC. EXAMPLE

<u>Contract</u>	<u>CIPT* Objective</u>	<u>Facilities Investment Objective</u>	<u>Imputed Cost of Facilities Capital</u>	<u>Return**</u>
a. Pre-DPC 76-3 Base case (\$10.00 Facilities Investment)				
A	@ 4%, \$4.00	---	---	\$ 4.00
B	@ 8%, \$8.00	---	---	\$ 8.00
b. Post-DPC 76-3 Base case (\$10.00 Facilities Investment)				
A	@ 2.8%, \$2.80	@ 8%, \$0.80	@ 8%, \$0.80	\$ 4.40
B	@ 5.6%, \$5.60	@ 8%, \$0.80	@ 8%, \$0.80	\$ 7.20
c. Post-DPC 76-3 Case (\$15.00 Facilities Investment)				
A	@ 2.8%, \$2.80	@ 8%, \$1.20	@ 8%, \$1.20	\$ 5.20
B	@ 5.6%, \$5.60	@ 8%, \$1.20	@ 8%, \$1.20	\$ 8.00
d. Post-DPC 76-3 Case (\$10.00 Facilities Investment 10% Facilities Investment)				
A	@ 2.8%, \$2.80	@10%, \$1.00	@ 8%, \$0.80	\$ 4.60
B	@ 5.6%, \$5.60	@10%, \$1.00	@ 8%, \$0.80	\$ 7.40
e. Post-DPC 76-3 Cost (\$10.00 Facilities Investment, 10% Cost of Facilities Capital)				
A	@ 2.8%, \$2.80	@ 8%, \$0.80	@10%, \$1.00	\$ 4.60
B	@ 5.6%, \$5.60	@ 8%, \$0.80	@10%, \$1.00	\$ 7.40

\* CIP - Contractor's Input to Total Performance

\*\* Return is the sum of the CIPD and the facilities investment profit objectives plus the imputed cost of facilities capital.

With DPC 76-3 the DOD contracting officer must reduce the CIP by a factor of 0.7 and provide imputed cost of facilities capital at the US Treasury rate, say 8%. In addition, he assigns

a profit weight of 8% to each contract because of the nature of the facilities investment. The results of this adjustment is shown in Table 3b.

Contract A, which received the low CITD objective, had a significant growth in return<sup>1</sup>.

In contrast, Contract B with a higher CIP objective lost return and lost it at a rate greater than Contract A gained.

To examine the effect of capital investment on return, the capital facilities of WWI will be increased to \$15 for each contract. Table 3c reveals the results. Return increases for both contracts by the same dollar amount but the effect is more pronounced on Contract A than on Contract B.

In the real world, contracts with a low CIP contribution to profit tend to be production oriented but carry a significant capital facilities investment as with Contract A, Table 3c. Such contracts tend to be of the fixed price type (higher risk). On the other hand, contracts with high CIP are usually research and development oriented without such a large facilities investment similar to Contract B, Table 3b. These contracts tend to be cost reimbursement type where the risk is relatively low for the contractor.

In Table 3d & e, the rates for the facilities investment objective and the imputed cost of facilities capital were

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<sup>1</sup>Return is the sum of the CITD objective, facilities investment objective and imputed cost of facilities capital will be used to compare pre-DPC 76-3 returns with post-DPC 76-3 returns.



increased by 10% while facilities investment was returned to \$10.00. As can be expected, the effect is favorable on the return for both contracts while the impact is greater on Contract A with its lower CITP.

This model illustrates that DPC 76-3 does provide procedures which consider facilities investment levels in developing pre-negotiation profit objectives. It predicts that the effect will be more favorable with contracts that have a relatively low CITP and high facilities investment. Such procurements will probably be of the fixed price type. DPC 76-3 will be less favorable on returns of contracts with high CITP and low investment.

## SECTION IV

### A SURVEY OF GOVERNMENT AND INDUSTRY

#### In General

In an effort to investigate the effects of DPC 76-3 implementation at the end of its first year, this author contacted representatives of both industry and government. The survey was not intended to be, and is not, a comprehensive, in-depth study of the defense procurement policy. Neither resources nor time for such an effort was available.

It is a sampling of those personnel in government and industry who, on a daily basis, deal with the provisions of DPC 76-3. They are the people who are executing the new policy and are shaping its impact on profit levels and facilities investment levels. This study highlights their comments.

Corporate profit levels and comments on government policy are very sensitive issues for both government and industry personnel. For this reason, many of the people contacted insisted that the data they provided not be identified with their organization or with them. These requests will be honored. The details of all interviews are contained in Appendix A, and the following is a summary of those interviews.

#### The Government

The first contact made was with Mr. Dave Koonze from the Office of the Secretary of Defense (Manpower, Reserve Affairs, and Logistics) as the proponent for DPC 76-3. (Refer to



Appendix A, Interview C.) He felt that it was too early to detect the effects of DPC 76-3 and that it would be premature to attempt analysis for several years. His office is planning a survey to detect how the DOD field buying activities are implementing DPC 76-3 and the results of that study will be available in January 1978 (9).

The Pricing and Finance Division, Air Force Systems Command (Refer to Appendix A, Interview E) made available the pricing data they had collected on contracts negotiated by their buying activities and by those of the Air Force Logistics Command. One set of data contained a summary report of the planned profit objectives on Fiscal Year (FY) 1976 contracts, i.e., before DPC 76-3 (1). Another set was detailed profit data collected on contracts negotiated since DPC 76-3 in FY 1977. This second set was reduced by this author, and a summary of all data is presented and compared by Table 4.

TABLE 4  
CONTRACT PROFIT INFORMATION  
US AIR FORCE SYSTEMS COMMAND  
BEFORE AND AFTER DPC 76-3

PROFIT FACTOR (% of Estimated Costs)	CPFF	CPIF	CONTRACT TYPE		TOTAL
			FPI	FFP	
a. Contractors Input to Total Performance (CITP) Objective	5.8%	4.9%	3.6%	3.3%	3.8%
b. Facilities Investment Objective	0.7	0.4	0.6	0.7	0.5
c. Total Profit (Pre-DPC 76-3)	7.3 (6.9)	7.7 (6.6)	11.6 (11.2)	12.7 (11.8)	10.3 (10.5)
d. Negotiated Profit	7.2	7.9	13.4	12.9	11.3
e. Cost of Facilities Investment	0.8	0.4	0.6	1.0	0.6
f. Return	8.0	8.3	14.0	13.9	11.9

SOURCE: From contract data provided by the Pricing and Finance Division, Directorate of Contracting Management, Deputy Chief of Staff for Procurement and Manufacturing, Air Force Systems Command.

( ) Data from FY 1976 contract planned profit objective.

For each contract type there was an increase in pre-negotiated profit objective from the pre-DPC 76-3 (FY 76) rates.<sup>1</sup> As was suggested by Section III, the cost reimbursement type contracts, cost-plus-fixed-fee (CPFF) and cost-plus-incentive-fee (CPIF), receive a higher CTIP objective and a lower facilities investment objective than the fixed price types, fixed-price-incentive (FPI) and firm-fixed-price (FFP). The cost of facilities capital as measured against the estimated costs averaged about 0.6% and tended to increase with the contract risk.

It is reasonable to assume that, since the pre-negotiated profit objectives all increased, the negotiated profit also increased by some amount. Cost of facilities capital was also provided and the net impact was to add at least 0.6% to the contractor return. This is a profit growth of about 5%.

A second government source provided contract data which conflicts with the previous data. The Analysis and Negotiation Division B, Aeronautical Systems Division at Wright-Patterson Air Force Base compared the profit objectives for FPI and FFP contracts before and after DPC 76-3. They found that profit objectives for these type of contracts decreased from 11.3% before to 10.2% after. Under DPC 76-3 the CITP objective averaged 4.3% and Facilities investment 0.6% of costs.

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<sup>1</sup>The total profit objective dropped. This decrease was caused by a significantly larger ratio of cost reimbursement type contracts in the cost base for FY 77 than FY 76. The lower profit objectives tended to bring the total down.

No data was provided on the imputed cost of facilities capital (2).

A final government source (refer to Appendix A, Interview J) provided some additional information<sup>1</sup>. This individual felt that initially profits were down under DPC 76-3; however, they have now returned to pre-DPC 76-3 levels. Labor intensive contracts without significant facilities investment are hurt by the literal application of the new guidelines, and the government recognizes this in their negotiations.

He felt that there was not a significant enough change in return because of facilities investment to change the level of investment. A limited survey he conducted showed that the cost of facilities capital yielded only approximately 0.5% on costs.

#### The Defense Industry

Eight contacts were made within large companies dealing with the DOD. Six interviews were made with contract negotiators/administrators and two with managers of facilities. A summary of their comments is provided in Table 5.

None of the eight sources indicated that their respective companies were getting hurt by the implementation of DPC 76-3. Four of the six contract negotiators indicated an overall increase in return which is approximately equal to or slightly

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<sup>1</sup>This source offered quantitative contract data which was not received. The information given was via telephone interview.

TABLE 5

SUMMARY OF COMMENTS ON PROFIT  
WITH INDUSTRY CONTRACT NEGOTIATORS

TYPE OF BUSINESS	COMMENTS
D - R&D, prototyping, production; All contract types; Large facilities investment	<ol style="list-style-type: none"> <li>1. Loss on cost reimbursement, gain on fixed price.</li> <li>2. Net profit gain of 0.4% of costs.</li> <li>3. Cost of facilities capital averages 017% of costs.</li> <li>4. Net return gain is approximately 1% of costs.</li> </ol>
F - R&D, prototyping, production; Predominantly subcontracting; Large facilities investment	<ol style="list-style-type: none"> <li>1. Current profit plus cost of facilities capital.</li> <li>2. No significant change.</li> </ol>
G - R&D, Prototyping; 95% CPFF; Medium facilities investment	<ol style="list-style-type: none"> <li>1. No change in profit rate which runs above 8%.</li> <li>2. Adding cost of facilities capital provides a net gain of about 0.5% of cost.</li> </ol>
H - R&D, Studies; 5% Cost Share, 87% CPFF; Low facilities investment	<ol style="list-style-type: none"> <li>1. No change in profit rate which runs about 8%.</li> <li>2. Cost of facilities capital averages about 0.4% yielding a net gain of about 0.3% of costs.</li> </ol>
I - Aerospace Support; Very low facilities investment	<ol style="list-style-type: none"> <li>1. No change - business as usual.</li> </ol>
K - R&D, Prototyping; All contract types; Large facilities investment	<ol style="list-style-type: none"> <li>1. All types of contracts gained in return initially.</li> <li>2. Current trend is to offset any increase.</li> </ol>



greater than what they are receiving for the imputed cost of facilities capital (0.3 - 0.7% of costs). The remaining two stated that there did not appear to be any change in their return, i.e., the new profit rate plus imputed cost of facilities capital is the same as the old profit rate.

Three negotiators (see Table 5, D, H & I) indicated a problem with cost reimbursement contracts which do not have high facilities investment. Interview E revealed an actual loss on CPFF type contracts. G and H predicted losses but found the government negotiators "allowed" profits rates to be maintained at previous rates. The trend may be to disregard the DPC 76-3 weighted guidelines and negotiate at the bottom line as suggested by Interview G.

Two significant comments emerged from Interviews D and K (refer to Appendix A). D felt that since fixed price type contracts gained more return than cost reimbursement types, there would be an effort by industry to define a scope of work which can be negotiated as fixed price type. However, K pointed out that the gains made initially were only temporary, and the trend today is to offset any increase in return.

Comments on the impact of DPC 76-3 with respect to facilities investment was quite consistent. Although many felt it was too early to accurately measure, they all believed that the small increase in return (if any) will not be sufficient to cause an increase in facilities investment.

In this regard Interviews A and B are important. As a corporate staff officer with responsibility for facility

investment, A felt no pressure to change policy on investments as a result of DPC 76-3. B, as manufacturing program manager in an industrial plant, is a user of facilities capital. He has not noticed any change in the availability of capital and continues to justify facility needs with future sales.



## SECTION V

### CONCLUSIONS

The following conclusions are drawn as a result of examination of DPC 76-3 and the survey conducted of DOD implementation.

1. Application of DPC 76-3 has not been consistent throughout the field, and it is continuing to change.

2. Cost reimbursement contracts which are labor intensive, but have low facilities investment, do not fare as well as fixed price contracts.

3. The imputed cost of facilities capital is averaging about 0.5% of costs, and this has generally resulted in an increase return for industry. Any gains made may only be temporary as the government tends to offset them.

4. Increases in return to industry as a result of DPC 76-3 has not been sufficient to increase the level of investment after one year.

5. It is too soon to assess the long term impact of DPC 76-3 on the level of facilities investment.

## APPENDIX A

### SUMMARY OF INTERVIEWS

#### Interview A

1. Industry: Electronics Corporation
2. Position: Corporate Staff Officer responsible for facilities investment.
3. Comments:
  - a. He has not reviewed the results of DPC 76-3 at this time.
  - b. There has been no change in the corporate investment policy as a result of DPC 76-3. No immediate impact.

#### Interview B

1. Industry: Electronics Division
2. Position: Manufacturing Program Manager within a large production plant.
3. Comments:
  - a. There was initial confusion on how to apply DPC 76-3.
  - b. DPC 76-3 has not provided his programs any more money with which to operate. He does not receive the imputed cost of facilities capital and does know who gets those funds within his company.
  - c. He has not seen any changes made in capital availability (for investment) over the last year. They still have to justify every requirement. The plant has a large expansion program in progress now, but it was justified by forecasted sales increase.

### Interview C (9)

1. Government: Mr. David Koonze, Division of Contracts and Finance (Contracts Financial Committee), Deputy Assistant Secretary of Defense (Procurement), Assistant Secretary of Defense (Installations and Logistics).
2. Government officer responsible for DPC 76-3.
3. Comments:
  - a. After one year, he has no feel for how DPC 76-3 is doing. There are too many factors involved. He will not have a good feel for about three years.
  - b. He is preparing a preliminary survey to study implementation of DPC 76-3. Information from that study is scheduled for release in January 1978.
  - c. He does not have a specific goal identified as to the amount of change desired in facilities investment.
  - d. He is currently staffing some changes to DPC 76-3 and he provided me a copy.

### Interview D

1. Industry: Electronics
2. Position: Contracts negotiation/administrator.
3. Comments:
  - a. DPC 76-3 has effected our negotiated profit as reflected by a recent study he performed.

b.	<u>Pre-DPC 76-3 Profit</u>	<u>Post-DPC 76-3 Profit</u>	
CPFF	9.3%	8.5%	-0.8%
CPIF	9.2	8.8	-0.4%
FPI	11.3	11.4	+0.1%
FFP	12.1	12.9	+0.8%
Total	11.0	11.4	+0.4
Mix			
Base	\$563M	\$100M	

- c. Cost of Facilities Capital has been running from 0.5 - 0.8% for an average of about .75%.
- d. Net return is favorable -  $0.4 + .75\% = 1\%$  increase.
- e. On cost type they lose profit, but on fixed price type they gain. Since they do a larger proportion of fixed price type, the net result is favorable.
- f. Higher profits will attract them toward higher risk type contracts, i.e., pushing them toward completion type statements of work which can be negotiated as a fixed price type contract.

#### Interview E

- 1. Government: Pricing & Finance Division, Directorate of Contracting Management, Deputy Chief of Staff for Procurement and Manufacturing, Air Force Systems Command.
- 2. Position: Price Analyst.
- 3. Comments:
  - a. He provided me with raw data collected by his office on contracts negotiated by Air Force Systems Command and Logistics Command and valued at approximately \$2.250 billion. This is reported to his office on a post-



negotiation basis by the contracting officer. A summary of this data may be found in Table 4.

- b. He also provided me with summary data prepared by the Air Force Logistics Command for the same buying organizations in FY 76 (Pre-DPC 76-3) (1). These contracts were valued at approximately \$7.892 billion. The data is presented in Table 4.

#### Interview F

1. Industry: Electronics Group

2. Position: Overall responsibility for contracting with Group.

3. Comments:

- a. He has recently reviewed contracting data, but would not provide details.
- b. The result has been a "wash". He has not seen any significant change.
- c. The profit before DPC 76-3 was approximately equal to decreased profit now plus cost of money.
- d. There is still some confusion on the application of DPC 76-3 by both industry and government. However, more government negotiators use weighted guidelines than before.
- e. They do a great deal of work as a subcontractor. They try to get imputed cost of facilities capital handed-off into their subcontracts. If the prime contractor does not include it, they bring it up during negotiations.

### Interview G

1. Industry: Missile R&D
2. Position: Contract negotiator/administrator for product line.
3. Comments:
  - a. They do about \$25 million in business of which 95% is CPFF, no CPIF, 5% FP type. They use a high amount of IR&D funds and have a significant facilities investment.
  - b. Pre-DPC 76-3 profits were running just above 8% (never below). There was a wide variance on the use of weighted lines. They predicted a 0.7 - 1.5% reduction in fee upon implementation of DPC 76-3.
  - c. After DPC 76-3 they have not seen a trend to reduce fees (running 8-9.5%). They have been receiving 0.4 - 0.5% net increase because of imputed cost of capital. He felt that DPC 76-3 has been very good to them.
  - d. They get back below the (CITP) line what they lost above the line because of the .7 factor.
  - e. Government negotiators always use weighted guidelines now.
  - f. It is still too early to tell (full impacts). The trend is to negotiate less on specifics (such as cost elements) and move directly to negotiate at the bottom line.

### Interview H

1. Industry: Aerospace R&D
2. Position: Contract Negotiator/Administrator
3. Comments:
  - a. They are an R&D house, heavy on engineers and PhD's, but light on facilities.
  - b. They do about \$10 million of business base each year of which 5% is cost share, 8% FFP, no FPI or CPIF, and the remainder CPFF.
  - c. Pre-DPC 76-3 fees were running 8% which is reduced to an effective fee of 5% because of disallowances. Most of the fee is from CITP contribution.
  - d. Literal application of DPC 76-3 would yield  $8 \times 0.7$  or 5.6% fee plus approximately 0.4% imputed cost of capital or 6.0%. Effective fee would be about 3% because of disallowances.
  - e. Because government negotiators recognize this, they are allowing themselves to be negotiated back up to the before DPC 76-3 rates of about 8%. They have also been receiving imputed cost of capital of about 0.4% resulting in a return of about 8.3%.
  - f. There has been no pressure felt toward greater investment in facilities. It would not make much sense in their business since it is study oriented. There is no need.

### Interview I

1. Industry: Aerospace support
2. Position: Staff contracting officer
3. Comments:
  - a. In their business, they use leased facilities.
  - b. There has been no change because of DPC 76-3. It is business as usual.
  - c. They negotiate cost elements and bottom line.  
Imputed cost of capital or facilities investment is never discussed.
  - d. Contracting officers do not like weighted guidelines and don't use them.

### Interview J

1. Government: Service R&D Command.
2. Position: Contract Negotiator
3. Comments:
  - a. They do use Weighted Guidelines and the ACO recommends the cost of money factors.
  - b. Initially profits were down under DPC 76-3, but are back up now to pre-DPC 76-3 levels, across the board.
  - c. It is recognized that labor intensive contracts are hurt by DPC 76-3. There is no guidance on how to handle this.
  - d. The interviewee recently studied two large contracts (\$20 million) with a large company. Profit resulting from investment in facilities was less than 0.5% on



these contracts. He does not feel this is significant enough to cause a change in investment level.

Interview K

1. Industry: Aerospace
2. Position: Contractor negotiator/administrator for Division.
3. Comments:

a. His organization does primarily R&D through prototype stage.

b. Pre DPC 76-3 Profit Level

	<u>FFP</u>	<u>FPI</u>	<u>CPlus</u>	<u>Total</u>
% Profit	13.0	9.4	8.0	

c. Post DPC 76- Profit Level

	<u>FFP</u>	<u>FPI</u>	<u>CPlus</u>	<u>Total</u>
Base Cost	\$473.9M	4.5	23.7	502.1
Profit w/ Cost of Money	62.6M	.4	2.1	65.1
Total	\$536.5M	4.9	25.8	567.2
% Return	13.2	9.5	8.8	13.0

d. Most of these contracts were entered into just after DPC 76-3 was implemented. The trend now is to offset any increase in profit level.

e. No noticeable impact resulted. The profit increase was not enough to justify more facilities investment.

## APPENDIX B

### PROFIT FACTORS BEFORE DPC 76-3 (6:3-803)

	<u>Weight Ranges</u>
A. Contractor's Input To Total Performance	
Direct Materials	
Purchase Parts -----	1 to 4%
Subcontracted Items -----	1 to 5%
Other Materials -----	1 to 4%
Engineering Labor -----	9 to 15%
Engineering Overhead -----	6 to 9%
Manufacturing Labor -----	5 to 9%
Manufacturing Overhead -----	4 to 7%
General and Administrative Expenses -----	6 to 8%
B. Contractor's Assumption of Contract	
Cost Risk -----	0 to 7%
Type of Contract	
Reasonableness of Cost Estimate	
Difficult of Contract Task	
C. Record of Contractor's Performance -----	-2 to +2%
Small Business Participation	
Management	
Cost Efficiency	
Reliability of Cost Estimates	
Value Engineering Accomplishment	
Timely Deliveries	
Quality of Product	
Inventive and Developmental Contributions	
Labor Surplus Area Participation	
D. Selected Factors -----	-2 to +2%
Source of Resources	
Government of Contractor Source	
of Financial and Material Resources	
Special Achievement	
Other	
E. Special Profit Consideration -- See 3-808.6	

## APPENDIX C

### PROFIT FACTORS UNDER DPC 76-3 (7: )

Profit Factors	Measurement Base	Weight Ranges
A. Contractor Effort (1)	Booked Costs(2)	
<u>Material Acquisition</u>		
Subcontract Items		1 to 5%
Purchased Parts		1 to 4%
Other Material		1 to 4%
<u>Engineering</u>		
Direct Labor		9 to 15%
Overhead		6 to 9%
<u>Manufacturing</u>		
Direct Labor		5 to 9%
Overhead		4 to 7%
<u>Other</u>		
General Management		6 to 8%
B. Contractor Risk	Booked Costs(2)	0 to 8%
C. Facilities Investment	Facilities Capital Employed	6 to 10%
D. Special Factors		
Foreign Military Sales	Value of FMS Order	1 to 4%
Productivity	(See 3-808.8)	
Independent Development	Booked Costs(2)	1 to 4%
Other	Basic Profit Objective	-5 to +5%

(1) An adjustment factor of 17 is applied to the results of the contractor effort evaluation to arrive at the dollar profit objective for this factor (see DD Form 1547).

(2) See 3-1300.5.

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